





# MOHIT DEOLI

 [devmt04.github.io](https://devmt04.github.io)

 +91-7668574740

 [mohitdeoli004@gmail.com](mailto:mohitdeoli004@gmail.com)

 [linkedin.com/in/mohitdeoli](https://linkedin.com/in/mohitdeoli)

 [github.com/devmt04](https://github.com/devmt04)

## Technical Skills

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**Languages:** C/C++, Python, Java, x86 Assembly, HTML/CSS, JavaScript, SQL

**Developer Tools:** VS Code, Qt Creator, Android Studio

**Technologies/Frameworks:** Linux, Qt(C++), Django, PyTorch, Git, CMake, Makefile

## Open Source Experience

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**Contributor - NumPy (Open Source Scientific Computing Library)**

**August 2025 - Present**

- Contributed to the core codebase of NumPy, working with both C and Python code.
- Submitted 4 pull requests so far.
- Some Submitted PRs : **#29623**, **#29506**, **#29507**, **#29557**
- Github Repo : [devmt04/numpy](https://devmt04/numpy)

## Projects

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**TODOWidget** | C, XLib, SQL, Makefile

**July 2024**

- Developed a lightweight and fully customizable desktop widget for managing to-do items on **Linux**, using low-level X11 api, C, and SQL.
- Implemented entirely from scratch with **no external dependencies for UI**, resulting in a minimal and efficient footprint.
- Manually created all GUI components for complete control and performance optimization.
- GitHub Repo: [devmt04/TODOWidget](https://devmt04/TODOWidget)

**Vedika Web Browser** | C++, Qt, HTML/CSS/JS, CMake

**May 2025**

- Developed a custom web browser with a fully-fledged tab and navigation system using Qt and C++.
- Designed to address **limitations in existing browsers** by enabling true **multitasking** with support for multiple web pages simultaneously.
- Implemented dynamic layout modes - **Single**, **Split**, and **Grid** to allow flexible viewing and interaction with multiple tabs.
- Built with a modular architecture showcasing strong **object-oriented design** and efficient custom widget integration for enhanced performance and visual control.
- GitHub Repo: [devmt04/VedikaBrowser](https://devmt04/VedikaBrowser)

**HRNET-MTL : Multi-Task Human Image Model** | Python, NumPy, PyTorch

**July 2025**

- Developed a **multi-task learning (MTL)** model using **High-Resolution Network (HRNet)** as the backbone architecture.
- Designed to simultaneously perform three tasks on human full-body images: **age estimation**, **body part segmentation**, and **pose estimation**.
- Reproduced and integrated the **PCGrad algorithm** by studying its original paper to address gradient conflicts problem commonly encountered in MTL.
- Engineered a **High-Level modular API** using Python OOP principles to allow easy customization and training by end users.
- GitHub Repo: [devmt04/HRNET-MTL](https://devmt04/HRNET-MTL)

## Education

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**Lovely Professional University**

**Apr. 2023 – Current**

*Bachelor of Technology in Computer Science and Engineering*

*Phagwara, Punjab*

## Languages

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**English:** Full Professional Proficiency

**Hindi:** Native Proficiency